

BEKTERMIROV, T. A.

"Characteristic Foci of Q Fever.", Proceedings of Inst. Epidem and Microbiol . im. Gamaleya . 1954-56.

Division of Rickettsiosis (Zdrodovskiy, P. F. Active Member of Academy of Medical Sciences, USSR, professor, head.) Inst. Epidem and Microbiol im. Gamaleya AMS USSR.

SO: Sum 1186, 11 Jan 57.

BEKTEMIROV, T.A.

Characteristics of a Q fever focus. Zhur.mikrobiol. epid. i immun.
no.6:18-23 Je '55. (MLRA 8:9)

1. Iz otdela rikketsiozov (zav.-prof. P. F.Zdradovskiy) Instituta
epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR (dir.
prof. G. V.Vygodchikov)
(Q FEVER, epidemiology,
in Russia, foci of infect.)

BEKTEMIROV, T. A.

BEKTEMIROV, T. A.: "The characteristics of an endemic focus of Q fever in the Crimea." Acad Med Sci USSR. Inst of Epidemiology and Microbiology imeni Honorary Academician N.F. Gamaleya. Moscow, 1956. (Dissertation for the Degree of Candidate in Medical Sciences.)

Source: Knizhnaya letopis' No 40 1956 Moscow.

BEKTEMIROV, T.A.; TARASEVICH, I.V.; KARULIN, B.Ye.

Characteristics of an endemic focus of Q fever in the Crimea. Zhur.
mikrobiol.epid. i immun. 27 no.11:20-26 N '56. (MLRA 10:1)

1. Iz Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei
AN SSSR.

(Q FEVER, epidemiology,

in Russia, endemic foci in Crimea (Rus))

FEDOROVA, N.I.; BEKTEMIROV, T.A.; TARASEVICH, I.V.; KERRABAYEV, E.B.;
SEMASHKO, L.L.

Distribution of Q fever among cotton mill workers. Zhur.mikrobiol.
epid. i immun. 27 no.11:27-30 N '56. (MIRA 10:1)

1. Iz Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei AMN
SSSR i Ashkhabadskogo instituta epidemiologii, mikrobiologii i gigiyeny
(Q FEVER, epidemiology,
in cotton workers (Rus))
(OCCUPATIONAL DISEASES,
Q fever in cotton workers (Rus))

BEKTEMIROV, T.A.; TELENKOV, P.F.; KISLITSINA, L.I.; GRITSSENKO, A.K.

Q fever in the Chita Province. Zhur.mikrobiol.epid. i immun. 28
no.6:25-28 Ja '57. (MIRA 10:10)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei A.M.N
SSSR i Chitinskogo instituta epidemiologii, mikrobiologii i
gigiyeny.

(Q FEVER, epidemiology,
in Russia (Rus))

BEKTEMIROV, T.A.; MASTYUKOVA, Yu.N.

Effect of internal irradiation on experimental viral and rickettsial infections. Report No. 1: Effect of radioactive phosphorus on the susceptibility of white mice to vaccinia viruses. Vop. virus. 5 no. 2:221-225 My-S '60. (MIRA 14:4)

1. Kafedra virusologii Tsentral'nogo institut usovershenstvovaniya vrachey, Moskova.

(VACCINIA) (PHOSPHORUS—ISOTOPES)

BEKTEMIROV, T.A.

Influence of large doses of γ -rays on some properties of viruses.
Med.rad. no.10:62-66 '61. (MIRA 14:10)

1. Kafedra virusologii Tsentral'nogo instituta usovershenstvovaniya
vrachey.
(VIRUSES) (GAMMA RAYS--PHYSIOLOGICAL EFFECT)

SOLOV'YEV, V.D.; BEKTEMIROV, T.A.

Differentiation of the viruses of smallpox vaccine and of natural
smallpox in tissue culture. Vop.virus 7 no.4:24-27 J1-Ag '62.
(MIRA 15:8)

1. Kafedra virusologii TSentral'nogo instituta usovershenstvovaniya
vrachey, Moskva.
(SMALLPOX) (TISSUE CULTURE) (VACCINE LYMPH)

SOLOV'YEV, V.D.; BEKTEMIROV, T.A.; MARCHENKO, A.T.; NIKOLAYEVSKIY, G.P.

Study of cross immunity to vaccinia and variola viruses in monkeys. Vop.virus. 7 no.6:701-705 N-D '62. (MIRA 16:4)

1. Kafefra virusologii TSentral'nogo instituta usovershenstvovaniya vrachey Moskovskaya gorodskaya sanitarno-epidemiologicheskaya stantsiya i Nauchno-issledovatel'skiy institut virusnykh preparatov, Moskva.

(SMALLPOX—PREVENTIVE INOCULATION)

SOLOV'YEV, V.D.; BEKTEMIROV, T.A.

[Tissue cultures in virology] Tkanevye kul'tury v viruso-
logii. Moskva, TSentr. in-t usovershenstvovaniia vrachei,
1963. 197 p. (MIRA 16:9)
(TISSUE CULTURE) (VIRUS RESEARCH)

BEKTEMIROV, T.A.; SOKKAR, I.M.

Comparative study of the strains of atypical fowl plague (Newcastle disease) virus of varying virulence in chicken embryo tissue cultures. Vop. virus. 8 no.3:330-335 My-Je'63.
(MIRA 16:10)

1. Tsentral'nyy institut usovershenstvovaniya vrachey, Vsesoyuznyy institut eksperimental'noy veterinarii, Moskva.
(NEWCASTLE DISEASE—MICROBIOLOGY) (TISSUE CULTURE)

BEKTEMIROV, T.A.

Effect of radioactive phosphorus on experimental rickettsial infection.
Trudy TSIU 68:112-118 '64. (MIRA 18L5)

BEKTEMIROV, T.A.

Interference of smallpox viruses and smallpox vaccine.
Trudy TSIU 80:73-76 '65; (MIRA 18:11)

BEKTEMIROV, T.A.

Production of interferon in chick embryo tissue infected
with smallpox virus. Trudy TSIU 80:102-105 '65.
(MIRA 18:11)

BEKTEMIROV, T.A.; GUMENNIK, A. Ye.

Effect of some factors on the production of interferon in mono-
layer chick embryo cultures. Vop. virus. 10 no. 6:689-693 N-D
'65 (MIRA 19:1)

1. Tsentral'nyy institut usovershenstvovaniya vrachey Ministerstva
zdravookhraneniya SSSR, Moskva. Submitted January 22, 1965.

BEKTIMIROV, A. Kh.

AID P - 1901

Subject : USSR/Engineering

Card 1/1 Pub. 29 - 6/25

Author : Bektimirov, A. Kh., Eng.

Title : ~~MECHANIZATION OF SOOT BLASTING IN BOILERS~~
Mechanization of soot blasting in boilers

Periodical : Energetik, no.2, 14, F 1955

Abstract : The author describes a mechanical installation for blowing out soot from the heating surfaces of a boiler. Designed by the foreman of a boiler room, the new mechanism reduces the number of attendants from three to one. One diagram.

Institution: None

Submitted : No date

BEKTI MIROVA, K. M.: Master Agric Sci (diss) -- "The development and principles
of measures in the intoxication of cotton with organic insecticides". Alma-Ata,
1958. 20 pp (Min Agric USSR, Kazakh State Agric Inst), 200 copies (KL, No 8,
1959, 137)

BEKTIIMIROVA, V.A., otv. za vypusk; LYUDVIG, L.A., tekhn. red.

[National economy of the Uzbek S.S.R. in 1960; concise collection
of statistical data] Narodnoe khoziaistvo Uzbekskoi SSR v 1960 godu;
kratki statisticheski sbornik. Tashkent, Gosstatizdat, Uzb. otd-
nie, 1961. 95 p. (MIRA 16:6)

(Uzbekistan—Economic conditions)

BEKTIMIROVA, V.A., otv. za vypusk; TYUKLOVA, N.A., tekhn. red.

[National economy of the Uzbek S.S.R. in 1961; brief
statistical abstract] Narodnoe khoziaistvo Uzbekskoi SSR v
1961 godu; kratkii statisticheskii sbornik. Tashkent, Gos-
statizdat. Uzb. otd-nie, 1962. 227 p. (MIRA 16:4)
(Uzbekistan—Statistics)

L 50736-65 EWT(1)/EEC(m)/EPR/EWA(h) Po-4/Pq-4/Pe-4/Peb/Pl-4 JKT/TK/
NW/JT

ACCESSION NR: AP5015321

UR/0286/65/000/009/0076/0077
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2

AUTHOR: Sarkisvants, E. A.; Markov, V. K.; Vinogradov, V. A.; Zharinov, Yu. L.;
Bektimorov, N. S.; Smirnov, A. G.; Glukhov, V. P.

TITLE: A compensation turbine flowmeter. Class 42, No. 170704

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 76-77

TOPIC TAGS: flowmeter, flow measurement AM

ABSTRACT: This Author's Certificate introduces a compensation turbine flowmeter which contains two independent turbines rotating about a common axis on roller bearings and a contactless induction transducer which converts relative angular velocity into an electric signal. The device is designed so that the form of the stream is changed very little during measurement of the rate of flow. The sensing element is made in the form of two small turbines. One of these turbines has straight blades and measures the angular velocity of the stream, while the other measures the absolute velocity. The sensing element also contains an induction tachogenerator with a geared inductor which is mounted on the turbine discs.

Cord 1/3

L 50736-65

ACCESSION NR: AP5015321

ASSOCIATION: Organizatsiya gosydarstvennogo komiteta po oboronnoy tekhnike SSSR
(Organization of the State Committee for Defense Technology SSSR)

SUBMITTED: 29Jun64

ENCL: 01

SUB CODE: IE, PR

NO REF SOV: 000

OTHER: 000

Card 2/2

BEKTURGENOVA, Karima; SIDOROV, A.F., ed. red.

[Origin and development of collective-farm and cooperative property in Kirghizistan, 1917-1932] Vozniknovenie i razvitie kolkhozno-kooperativnoi sobstvennosti v Kirgizii (1917-1932 gg.) Frunze, Izd-vo AN Kirgiz.SSR, 1964. 161 p. (MIRA 17:8)

BEKTURSUNOV, Sh.Sh.

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30879
S/148/61/000/009/001/012
E071/E135

AUTHORS: Yavoytskiy, V.I., Chernaga, D.F., Dudko, D.A.,
Tyagun-Belous, G.S., Bektursunov, Sh.Sh.,
Bocherov, V.A., Agamalova, L.L., Molotkov, V.A.,
Yakobshe, R.Ya., and Potanin, Ye.M.

TITLE: Electrolytic phenomena in the process of electrosag
heating of ingots

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya
metallurgiya, no.9, 1961, 32-43

TEXT: Electrosag heating of ingots is based on the ionic
nature and structure of slag. On passing a current through the
slag, situated on the surface of the shrinkage head, a considerable
amount of heat is evolved, sufficient to maintain the slag and
metal in the upper part of the ingot during its crystallisation
in the molten state. The object of the present investigation was
to elucidate the influence of the kind of electric current on the
processes taking place during electrosag heating of ingots. It
is advantageous to carry out the heating of the ingot tops in such

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Electrolytic phenomena in the process... ³⁴⁶⁷⁷ S/148/61/000/009/001/012
E071/E135

a manner that in addition to increasing the yield of good metal there should be an improvement in the metal quality resulting from the electrolytic effect and also from the transfer of a part of the segregating elements into the slag. The experiments were made with four ingots of a square cross-section, weighing 3.4 tons, of steel 10Г 20Д (10Г20Д), melted in 75 ton basic open hearth furnaces. The electroslag heating was with direct and alternating current. For the first ingot the electrode introduced into the head part was connected to the cathode and the plus to the ingot (straight polarity); the second ingot was heated with direct current of reverse polarity (minus to the bottom of the mould, plus to the electrode in the head part); the third ingot was heated with a 50 c.p.s. alternating current; the fourth ingot was cast by the usual practice and was used as a blank experiment. The first three ingots were top poured through an intermediate funnel and the fourth ingot was bottom poured. A generator capable of producing 1000 A at 60 V was used for heating with direct current. The heating conditions were as follows: voltage 48 V, current for the first 60 minutes 950 A and then

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Electrolytic phenomena in the process. S/148/61/000/009/001/012
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700 A; the duration of heating 90 minutes. The flux for the formation of slag consisted of 25% fluorspar, 45% finely crushed freshly ignited lime, 30% chamotte powder. The ingots were rolled into slabs 500 x 250 mm. Four templets were cut from each slab and then cut into strips from which test specimens were made. Non-metallic inclusions were determined metallographically and electrolytically. It was found that the distribution of non-metallic inclusions in the ingot was the most advantageous on heating it with direct current of "straight" polarity. This type of heating lowers chemical non-uniformity in comparison with ingots cast by the usual works technology and heated with alternating current, or direct current of reverse polarity. There is a tendency for sulphur to be shifted towards the positive pole, whereupon sulphur near the positive pole is distributed unevenly along the cross-section of the ingot in the form of segregation "spots". No shift of carbon towards the negative pole was established. During the heating with direct current of straight and reverse polarity, in addition to electrolytic phenomena, the Perrin-Tochinskiy effect leading to the refining

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30879
Electrolytic phenomena in the process... S/148/61/000/009/001/012
E071/E135

of the metal of the head part of the ingots was observed. No noticeable effect of direct current on changes in the content and distribution of nitrogen in the rolled metal was observed. It was established that the content of hydrogen in the shrinkage head decreases during crystallisation of the ingot heated with a direct current of reverse polarity and increases with direct polarity (minus on the electrode). The mechanical properties of the metal of the ingot teemed with heating by current of direct polarity are most uniform throughout the whole volume of the slab. The specific gravity of the metal of all the ingots was almost the same. The pickling ability of the metal (weight loss of cylindrical specimens in a solution of 65 wt. parts of HCl, 25 wt. parts of H₂SO₄ and 10 wt. parts of water at 70 °C during 40 minutes) along the whole slab is the highest on heating with direct current of "straight" polarity and lowest on heating with direct current of reverse polarity. On heating with alternating current of an industrial frequency the quality of the ingot metal was better than that of the "blank" ingot and was nearly the same as on heating with direct current of "straight" polarity.

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Electrolytic phenomena in the process... ³⁰⁸⁷⁹ S/148/61/000/009/001/012
E071/E133

There are 6 figures, 4 tables and 9 references: 8 Soviet-bloc
and 1 non-Soviet-bloc.

ASSOCIATION: Moskovskiy institut stali
(Moscow Steel Institute)

SUBMITTED: May 24, 1961

Card 5/5

BEKTURSUNOV, SH.SH.

S/148/61/000/009/002/012
E071/E135

AUTHORS: Bektursunov, Sh.Sh., Yavoykiy, V.I., Chernega, D.F.,
Tyagun-Belous, G.S., and Sytova, N.M.

TITLE: The behaviour of hydrogen during electrosag heating
and supplementary feeding of ingots

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya
metallurgiya, no.9, 1961, 44-53

TEXT: The authors carried out experiments on electrosag
heating and supplementary feeding of 8.2 ton sheet ingots of a low
alloy steel $\text{MK } 10\Gamma 2\text{C}\Delta$ (10G2SD) on a large scale experimental
installation in which samples of the metal and slag were taken
during the course of crystallisation of the ingots for the
determination of hydrogen. The chemical composition of the steel
was: $\leq 0.12\% \text{ C}$; $1.3-1.65\% \text{ Mn}$; $0.8-1.1\% \text{ Si}$; $\leq 0.30\% \text{ Cr}$;
 $\leq 0.30\% \text{ Ni}$; $0.15-0.30\% \text{ Cu}$; $0.02\% \text{ Ti}$; $\leq 0.040\% \text{ S}$ and P . The
process was carried out as follows: After filling the mould up to
about one third of the height, a slag forming mixture was placed
on the surface of the metal; 10-12 min after filling the mould,
three electrodes were introduced into the slag, current (55-60 V.
Card 1/4

The behaviour of hydrogen during ... S/148/61/000/009/002/012
E071/E135

1000-1400 A) was switched on and an additional amount of the slag forming mixture added so as to form a slag bath 80-100 mm deep. The duration of heating and supplementary feeding was 60-65% of the time necessary for the complete crystallisation of the ingot in normal production (about 2 hours). The slag forming mixture consisted of 40 kg chamotte powder, 60 kg lime and 10 kg spar concentrates. The slag formed had the following composition: 26-28% SiO₂; 38-40% CaO; 16-18% Al₂O₃; 1.0-1.5% FeO; 0.2-0.6% Fe₂O₃; 1.0-1.3% MnO; 5.0-7.0% MgO; 6-8% CaF₂; 0.02-0.03% P₂O₅; and 0.006-0.010% S. The lining of the top was made from magnesite brick. Samples of the metal were taken from the shrinkage head with a silica tube and samples of the slag from the space between the central and one of the peripheral electrodes with a metallic spoon. The extraction of the gas from the samples was done at 950-1000 °C at 3-5 x 10⁻² mm Hg. To elucidate the influence of the heating on the residual hydrogen content in the metal, four transverse and one longitudinal templates were cut from three ingots (one of the ingots teemed by the usual technology was used for comparison). It was found that in the shrinkage head and 100 mm below the head, the content of hydrogen

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The behaviour of hydrogen during ...

in the ingots teemed with the heating was somewhat lower than in the usual ingots; in the remaining parts of all three ingots the hydrogen content was approximately the same. The average hydrogen contents were as follows: in the usual ingots 4.98 cm³/100 g; in the ingot teemed with electroslag supplementary feeding 4.05 cm³/100 g; in the ingot teemed with electroslag heating or supplementary feeding of the head of the ingots secures the transfer of some of the hydrogen from the metal to the slag, thus lowering somewhat the concentration of hydrogen in the whole system of the ingots but particularly in their head part. The transfer of hydrogen into the slag bath takes place not only due to the Perrin-Tochinskiy effect, but also due to the electrolytic transfer of OH⁻ ions and their discharge on electrodes during the half period when the electrodes are acting as anodes. O.A. Yesin, V.I. Yavoyakiy, G.N. Batalin and V.S. Baykov are mentioned for their contributions in this field. There are 7 figures and 13 references: 11 Soviet-bloc and 2 Russian translations of non-Soviet publications.

Card 3/4

The behaviour of hydrogen during ... S/148/61/000/009/002/012
E071/E135

ASSOCIATION: Moskovskiy institut stali, Kiyevskiy politekhnicheskoy
institut, Institut elektrovarki, Zhdanovskiy
metallurgicheskoy zavod
(Moscow Steel Institute, Kiyev Polytechnical Institute,
Electrowelding Institute, Zhdanov Metallurgical Works)

SUBMITTED: May 23, 1961

Card 4/4

BEKTURSUNOVA, N.S. (Frunze)

Possibility of indirect massaging of the heart for the resuscitation of persons injured by electric current. Vop. Elektropat., Elektrotravm. i Elektrobezop. 3:71-73 '62. (MIRA 16:12)

1. Iz laboratorii eksperimental'noy fiziologii po ozhivleniyu organizma (zav. prof. V.A. Negovskiy) AMN SSSR.

*

Behturov, A.

PROCESSING AND PROPERTIES

2

Distribution of benzoic acid between water and iso-butyl alcohol. N. A. Kabanovskii and Aleksei Behturov. *J. Gen. Chem. (U. S. S. R.)* 4, 1073-6(1934).— Expts. were made at 25°. Concn. C_1 and C_2 of BuOH in g. mole./l. of H_2O and iso- BuOH were: 0.00871, 0.01980; 0.00919, 0.02230; 0.0121, 0.0351; 0.0142, 0.0446; 0.0149, 0.0528; 0.0181, 0.0763; 0.0217, 0.1233; 0.0228, 0.1505; 0.0272, 0.1920. The distribution curve can be expressed approx. by $y = 2.53X^2 - 0.0084$, where $X = -0.00033 + 0.7807(C_1 + C_2) - 0.306745(C_1/C_2)$ and $y = -0.18098 - 0.61340(C_1 + C_2) + 0.39485(C_1/C_2)$. Twenty references.

S. L. Madorsky

ASAC-11.6 METALLURGICAL LITERATURE CLASSIFICATION

117 AND 118 OFFICE		PROCEDURES AND PROPERTIES INDEX		119 AND 120 OFFICE																																																																											
AC 2-1 Partition: (a) α-amino acids between two liquid phases; (b) hydrophobic peroxide between water and octane; (c) effect of electrolytes on the partition of selected fatty acids between water and octane. R. A. de Kozlovski (Ukrain. Chem. J. 1955, 29, 32-40, 41-45). (A) [with A. B. Kozlovski and A. B. Kozlovski.] The partition coefficients of α-amino acids have been determined at 25° for 1:1 mixtures of H₂O and EtOH, glycerol. (b) [with A. B. Kozlovski and A. B. Kozlovski.] For H₂O-EtOAc, -C₂H₅OH, and -C₂H₅OH, r, diminishes with increasing concn. of H₂O. (c) [with I. E. Kozlovski.] For HCOOH, AcOH, and EtOH at 25°, r may be calc. from the formula $r = K \cdot N/(1+N)$, where K is in the absence of electrolyte, μ and ν are concn. characteristic of the anion and cation, and N is the concn. of the electrolyte in the aq. layer. R. T.																																																																															
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127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200						

Distribution of phenylacetic acid between two liquid phases. N. A. Kolesnikov and A. Bekturov. J. Gen. Chem. (U. S. S. R.) 5, 60-2 (1935); *Collection of PbCl₂-CO₂H* moles per l. in H₂O (C) and an org. liquid (C₂) at 25° for the system C₆H₅CH₂CO₂H in H₂O and C₆H₅CH₂CO₂H: 0.017, 0.061; 0.020, 0.053; 0.027, 0.111; 0.012, 0.032; 0.017, 0.700; 0.179, 0.946; 0.191, 1.168; 0.008, 0.581; 0.067, 0.700; and 0.130, 2.135; for the system C₆H₅CH₂COOH in H₂O and C₆H₅NO₂: 0.0067, 0.103; 0.340; 0.126, 1.960; and 0.130, 2.135; for the system C₆H₅CH₂COOH in H₂O and (CH₃)₂CHCOOH: 0.0106, 0.0690; 0.0267, 0.267; 0.043, 0.564; 0.043, 0.765; 0.061, 1.060; 0.068, 1.262; 0.179, 1.571; 0.043, 0.765; 0.061, 1.060; 0.068, 1.262; and 0.107, 0.144; 1.809; 0.101, 0.349; 0.006, 2.470; and 0.107, 2.783 for the system C₆H₅CH₂COOH in H₂O and (CH₃)₂CHCOOH: 0.0069, 0.0158; 0.0071, 0.0690; 0.0070, 0.137; 0.0069, 0.221; 0.011, 0.267; 0.015, 0.404; 0.010, 0.457; 0.029, 0.808; 0.038, 1.082; 0.051, 1.372; 0.069, 1.818; and 0.1080, 2.069. The results are compared with those of other investigators. S. L. M.

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Distribution of malonic and di-isethic acids between water and saturated monohydric aliphatic alcohols. N. A. Kolosovskii and A. Bektarev. *J. Gen. Chem.* (U. S. S. R.) 5, 70-72 (1935). At 25°, distribution of malonic and di-isethic acids between H₂O and a satd. monohydric aliphatic alc. is given as follows (1st number is soly. of the acid in mole. per l. in H₂O and 2nd number soly. in the alc.): in the system CH₂(COOH)₂ in H₂O and (CH₃)_nCH₂OH: 0.0178, 0.0008; 0.0237, 0.0154; 0.0356, 0.0276; 0.0758, 0.0503; 0.302, 0.166; 0.385, 0.237; 0.418, 0.344; 0.418, 0.336; 1.061, 0.842; 1.000, 1.200; 1.992, 1.700; 3.818, 3.967; 3.374, 3.443; 3.997, 3.000; and 4.214, 3.911 in the system CH₂(COOH)₂ in H₂O and CH₃(CH₂)_nCH₃: 0.300, 0.000; 1.811, 0.700; 1.800, 1.800; 3.818, 3.858; 3.889, 1.908; 4.880, 3.816; 6.490, 3.834; 9.600, 3.900; 11.818, 5.861; and 11.986, 6.274; in the system CH₂(COOH)₂ in H₂O and (CH₃)₂CHCH₂CH₂OH: 0.0168, 0.0075; 0.070, 0.037; 0.306, 0.108; 0.266, 0.180; 0.412, 0.205; 0.626, 0.318; 1.354, 0.627; 1.500, 0.767; 2.123, 0.973; 3.800, 1.197; 3.443, 1.385; 3.984, 1.544; in the system CH₂CH(OH)COOH in H₂O and (CH₃)_nCH₂OH: 0.188, 0.068; 0.358, 0.145; 0.520, 0.221; 0.700, 0.358; 1.350, 0.666; 1.750, 0.944; 2.700, 1.616; 3.218, 2.051; 3.919, 2.974; and 4.178, 3.477. S. L. M.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND SERIES										3RD AND 4TH SERIES									
PROCEDURE AND PROPERTIES INDEX																			
BC										a-1									
Distribution of saturated aliphatic monocarboxylic acids between two contiguous liquid phases. R. A. de Kozlovski, A. Haryunov, and F. S. Kutikov. <i>J. Gen. Chem. Russ.</i> 1934, 5, 219-226. — Data are presented for the systems H_2O-$PhNO_2$-$HCOOH$ and $-AcOH$; H_2O-$iso-C_4H_9OH$-$EMCO_2H$-$PhCO_2H$ and $-EtCO_2H$; H_2O-$BzCO_2H$-CCl_4 and $-EtCO_2H$. R. T.																			
A58-554 METALLURGICAL LITERATURE CLASSIFICATION																			
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111 AND 112 SERIES		PROCESSING AND PROPERTY INDEX		113 AND 114 SERIES	
Effect of temperature on the distribution coefficient of saturated monobasic acids between water and organic solvents. A. Podgoray; J. Gen. Chem. (U. S. S. R.) 9, 419-22 (1958). The distribution coeff. ($K = C$ (in water)/C (in org. solvent)) was measured for HCO_2H and $AcOH$ in the systems water-C_2H_5, water-CCl_4 and water-$CHCl_3$ at 0°, 25° and 60°; 0° (for HCO_2H), 25° and 60°; and 0° and 60°, resp. The K for HCO_2H in all systems increased with decrease of the HCO_2H concn., progressively at 0°, more slowly at 25° and very slowly at 60°. An increase in temp. decreased the K for the mixt. with the same total concn. of HCO_2H, because the soly. of the latter increased much more rapidly in an org. solvent than in water. The K for low $AcOH$ concn. in the first 3 systems decreased with an increase of temp. from 0° to 60°, whereas practically independent of temp. for high $AcOH$ concn. below 25°. Above 25°, the K for high $AcOH$ concn. also decreased in the 1st and was unchanged in the 2nd system. The K for low $AcOH$ concn. in the 3rd system passed through a max. at 25° and for high $AcOH$ concn. slowly increased with temp. A. A. Podgoray					
ADDITIONAL METALLURGICAL LITERATURE CLASSIFICATION					
ECONOMY		ECONOMY		ECONOMY	
ECONOMY		ECONOMY		ECONOMY	

The effect of temperature on partition coefficients of saturated monocarboxylic acids between water and benzene. A. Bekhturov. *J. Gen. Chem.* (U. S. S. R.) 9, 1717-34 (1939) *U. S. C. A.* 33, 04804. The effect of temp. on the partition coeffs. of propionic, butyric, isobutyric and isovaleric acids was very small and the direction of change of the coeffs. is different at different concns. In no case was direct proportionality noticed between changes in the partition coeffs. and the temp. A definite reaction between C_1/C_2 and temp. for one interval of C_1/C_2 cannot be used in another interval of concn. of the same system.

D. Aclow

ca The effect of temperature on the distribution of benzoic and salicylic acids between water and benzene. A. R. Turvey. <i>J. Gen. Chem. (U. S. S. R.)</i> 11, 142-5 (1941); <i>cf. C. A. 36, 2283.</i>—The distribution of benzoic and salicylic acids between water and benzene was detd. at 60° and interpolated to 25° from available data. The results show an increase in the distribution coeff. in favor of the water phase upon diln., for both acids. Increase in distribution coeff. in favor of the water phase was also observed for the entire concn. range studied for both acids upon increase of temp. G. M. Kozlovskii	
AD-164 METALLURGICAL LITERATURE CLASSIFICATION	
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BEKTUROV, A.B.; KADUSHKINA, L.A.; ANTONOVA, V.I.

Water soluble form of P O from thermophosphates. Izv. AN Kazakh. SSR
Ser.khim.no.2:3-13 '48. (MIRA 9:7)
(Phosphoric acid) (Phosphates)

BEKTUROV, A.B.; BEREMZHANOV, B.A.

Solubility in citric acid of the phosphate component of thermophosphates.
Izv. AN Kazakh SSR Ser. khim. no. 2: 14-19 '48. (MLRA 9:7)
(Phosphates) (Citric acid)

2A

18

Production of pyrophosphates containing potassium.
A. B. Baklanov and V. A. Timofeeva. *Vestnik Akad. Nauk Kazakh. S.S.R.* 8, No. 7 (40), 81-6 (1948).—The products obtained by 45-min. heating at 800, 900, and 1000° of 100 parts of a phosphorite contg. 37-38% P_2O_5 with 25-60 parts potash (contg. 90% K_2CO_3) were analyzed for insol. residue, and for total and citric acid-sol. P_2O_5 . With 25 parts potash, conversion of P_2O_5 into the citric acid-sol. state is unsatisfactory even at 1000°, as the degree of decompn. is only 39%, and the insol. residue 36%. The latter decreases rapidly with the amt. of potash in the batch, and at the same time the citric acid-sol. part and the degree of decompn. increase; thus, at 800°, with 40 and 60 parts potash, the insol. residue was 16.9 and 4.8, citric acid-sol. P_2O_5 14.80 and 19.90, decompn. 64.0 and 97.0%; at 1000°, with 40 and 60 parts potash, 6.88 and 3.84, 20.4 and 21.8, 86.4 and 99.4%. The optimum ratio phosphorite: K_2CO_3 at 900° and 1000° is 100:55 and 100:80, resp. With K_2CO_3 , max. decompn. is attained at a lower temp. than with Na_2CO_3 . Heating in H_2O vapor (instead of in air) saves potash; thus, in the temp. range 900-1000°, max. decompn. is attained with about 40 parts potash/100 phosphorite. At that const. ratio, increase of the temp. from 900 to 1000° does not change any further the amt. of citric acid-sol. P_2O_5 or the degree of decompn.
N. Tson

BEKTUROV, A. B.

Bekturov, A. B. "The prospects for the development of the chemical industry of Western Kazakhstan" (According to the materials of the Gur'yev session of the Academy of Sciences of the Kazakh SSR), Vestnik Akad. nauk Kazakh. SSR, 1949, No. 2, p. 40-44.

So: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

BEKTUROV, A.B., TROFIMOVA, S.G.

**Kinetics of the decomposition of phosphorite in phosphoric acid.
Izv.AN Kazakh.SSR Ser.khim. no.3:62-80 '49. (MLA 9:8)
(Phosphorites)**

BEKTUROV, A.B.

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Zakona D.I. Mendeleyera). Vestnik Akad. Nauk Kazakh. SSR, 1949,

No. 3, S. 90-94

SO: Letopis' No. 33, 1949

BEKTUROV, A. B.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Acids, Alkalies, Salts, and
Other Heavy Chemicals

Structure of fused phosphates. V. A. Timofeev and A. B. Bekturov. *Izv. Akad. Nauk Kazakh. S.S.R. No. 101. Ser. Khim. No. 4, 71-5 (1951).*—The products of slow cooling of fused phosphates (apatite, phosphorite, MgO , quartz sand, and natural serpentine) show under the microscope the form of anisotropic grains, dendrites with medium or high birefringence, with n 1.61-1.63. Citrate soly. of the products is under 4%. Products of rapid cooling are glassy, with conchoidal fracture, with n in some specimens at 1.57-1.58, in others 1.61-1.63. The H_2PO_4 content of such specimens is completely sol. in 2% citric acid. X-ray photographs confirmed the fact that the cryst. part of the products are compds. close to fluorapatite, while the amorphous part is close to glass.
G. M. Kosolapoff

(2)

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BERTUROV, A.B.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Acids, Alkalies, Salts, and
Other Heavy Chemicals

Influence of various factors in phosphoric acid decomposition. V. I. Antonov, V. V. Pichonov, and A. B. Berturov. *Izv. Akad. Nauk Kazan. S.S.R. No. 101, Ser. Khim. No. 4, 70-8 (1951)*.—Decompn. of typical phosphates are specimens with pure HNO_3 was studied. At all concns. of HNO_3 , except the very low ones, the extn. of P_2O_5 and CaO is const. Increase of acid concn. slowly increases the extent of soln. of R_2O_3 . While these substances are extd. completely even below room temp., R_2O_3 extn. is affected by temp.: 5% extn. at 10° , 17% at 60° . The extn. of P_2O_5 and CaO is rapid, but the quant. extn. of R_2O_3 apparently does not depend on the time of contact. Extn. of P_2O_5 , CaO is most effective with particle size 0.14-0.19 mm. G. M. Kosolapoff

4/8/54
BW

BEKTUROV, A. B.

3

(3)

Potassium-containing thermophosphates. A. B. Bek-
turov and V. A. Zhupolceva. *Izvest. Akad. Nauk Kazakh.
S.S.R., Ser. Khim.* 1953, No. 5, 102-6; *Referat. Zhur.
Khim.* 1953, No. 7187.—Phosphorite (20.3% P_2O_5) sin-
tered with pure K_2SO_4 and charcoal under favorable condi-
tions yields a product which is in its entirety in available
form. The mechanism of the process is analogous to the
sintering of phosphorite with Na_2SO_4 . The reactions
involved are: in the presence of air: $Ca_3H_2(PO_3)_4 + 4$
 $K_2SO_4 + 8 C + 8 O_2 = 6 CaKPO_4 + 2 KF + 4 CaO + 8$
 $CO_2 + 4 SO_2$ and in the presence of water vapor: Ca_3H_2
 $(PO_3)_4 + 3 K_2SO_4 + 6 C + 4 H_2O = 6 CaKPO_4 + 2 HF +$
 $4 CaO + 3 H_2S + 8 CO_2$. In the presence of air the max.
decompn. of phosphorite requires more sulfate than under
similar conditions in the presence of water vapor. In the
latter case the requirement of sulfate is less and the P_2O_5
content in the product is higher. The most favorable con-
ditions for sintering in the presence of water vapor are
duration 30 min. at 1100° and compn. of charge: phosphorite
100, sulfate 50, H charcoal 25 parts by wt. The product
contains total P_2O_5 23.8, citric acid-sol. 23.1, F 0.20, and
 K_2O 10.1%. Degree of decompn. of phosphorite is 96%.
M. H.

KADUSHKINA, L.A.; BEKTUROV, A.B.

Citrate-soluble form of P_2O_5 in thermophosphates. Izv. AN Kazakh. SSR
Ser.khim. no5:107-115 '53. (MLRA 9:5)
(Phosphates)

Equilibrium state of the system $\text{Na}_2\text{S}-\text{Na}_2\text{CO}_3-\text{H}_2\text{O}$.
~~B. A. Berezin, A. A. Uvalova, and A. B. Rekturov.~~
~~Izv. Akad. Nauk Kazan. S.S.R., Ser. Khim. No. 6, 60-3~~
~~(1955) (in Russian).— Na_2S after recrystn. in H_2O at 100°~~
~~contained 31.70% Na_2S , 0.00% Na_2CO_3 , and 0.79% $\text{Na}_2\text{S}_2\text{O}_3$.~~
~~After dehydration at 110-210 mm. Hg at 150° for 26 hrs. it~~
~~assayed 78.8% Na_2S . Na_2CO_3 assayed 96.94%. Equil. at~~
~~30° was reached in 4 hrs. Soly. of Na_2CO_3 decreases con-~~
~~siderably with increase in concn. of Na_2S . Soly. of Na_2CO_3~~
~~in satd. soln. of Na_2S decreases with increase in temp. 10.16%~~
~~at 30°, 6.7% at 60°, 4.46% at 80°. V. N. Bodnarski~~

Bektarov, H.B.

Methods of obtaining phosphorus fertilizers from raw materials of Kazakhstan. A. B. Bektarov and G. I. Lyudogovskii. *Vestnik Akad. Nauk Kazakh. S.S.R.* 11, No. 8, 17-27(1955).—Owing to the short supply of H_2SO_4 in the U.S.S.R. and the consequent high cost of making superphosphate from phosphate rock in Kazakhstan, methods were sought to use local raw materials in place of H_2SO_4 . Na_2CO_3 , Na_2SO_4 , and minerals contg. the latter such as thenardite, astrakhanite, and mirabilite were investigated. When phosphate rock was ignited with Na_2CO_3 , the resulting product had the following approximate formulas: (a) $7.3 CaO \cdot 1.8 Na_2O \cdot 3 P_2O_5$ and (b) $7.4 CaO \cdot 1.6 Na_2O \cdot 3 P_2O_5$. When the phosphate rock was ignited with Na_2SO_4 and coal the resulting product had the following formulas: (a) $7.7 CaO \cdot 1.77 Na_2O \cdot 3 P_2O_5 \cdot SO_3$ and (b) $7.5 CaO \cdot 1.67 Na_2O \cdot 3 P_2O_5 \cdot 0.4 SO_3$. These thermophosphates were in the form of a dry, nonhygroscopic powder whose properties neither changed on long standing nor damaged the packing container. Expts. showed that from a phosphate rock contg. 20.5% P_2O_5 , thermophosphates were obtained which had a total of P_2O_5 23.6, citric acid-sol. P_2O_5 20.89, citrate-sol. P_2O_5 13.7, and water-sol. P_2O_5 0.52%. The degree of transformation of P_2O_5 into the citric acid-sol. form was 91.9%. Expts. were conducted on a semi-industrial scale. A rotating, brick-lined tubular furnace was used such as is employed in the cement industry. Mixtures of phosphate rock-thenardite and phosphate rock-mirabilite were investigated. In the case of the phosphate rock-thenardite mixt. 71.0-80.67% of the total P_2O_5 (13.18-21.1%) was in the citric acid-sol. form after a one-stage ignition. The reaction time for phosphate rock ~ 5 + 2 min was 10 min, while that of rock of ~ 50 mesh was 27 min. In the case of the phosphate rock anhyd. mirabilite mixt., a 2-stage ignition was used. It was found that a phosphate rock contg. 21.5% P_2O_5 in a mixt. contg. 30% soda and 40% sulfate produced a thermophosphate after a 2-stage ignition, contg. 17.08% citric acid-sol. P_2O_5 . The most economical ratio of phosphate rock to sulfate was concluded to be 100:10. Mutim translation.

715
 Paths of development of production of phosphate fertilizers from Kazakhstan raw materials. A. B. Bekturov and G. I. Lyudogovskiy. *Vestnik Akad. Nauk KazSSR*, J.S.R. 11, No. 6 (Whole No. 126), 27-32 (1955).—The methods employed in the production of P fertilizers from phosphate mineral materials available in Kazakhstan for thermal treatment are summarized. The agglomeration method, with a particle size of 1-3 mm. and by using the thermal process for a 2-stage production of ribbon- or belt-formed agglomerate, is highly recommended for phosphorite meal. The product formed from phosphorite-sulfate materials contain 18.8% total phosphoric acid or 17% citrate-sol. phosphoric acid, attained by the use of phosphorite 707, astrakhanite 415, sulfate 1414, and coke 814 kg. per ton of thermophosphate product. The 1-3-mm. particle size gives the best calcining and most complete utilization of the sulfates.
 G. M. Kozlovskiy

①

USSR/ Geology

Card 1/1 Pub. 123 - 8/11

Authors : Bekturov, A. B.; Mun, A. I.; and Beremzhanov, B. A.

Title : Physico-chemical investigation of salt deposits in Chul'-Adyr

Periodical : Vest. AN Kaz. SSR 12, 85-92, Dec 1955

Abstract : Scientific data are presented on the physico-chemical properties of salt deposits being developed in Chul'-Adyr. Kaz. SSR. Four USSR references (1922-1953). Tables; chart.

Institution :

Submitted :

Production of thermophosphates from Kara-Tau phosphorites and astrakhanite. A. B. Bekturov and Yu. K. Uvaliev. Izvest. Akad. Nauk Kazakh SSR Ser. Khim. 1956, No. 10, 34. — These phosphorites, which are mined from native astrakhanite, are used for the production of thermophosphates. The composition is 100 parts phosphorite, 10 parts astrakhanite and 30-40 parts of other materials. The product contains 10-12% phosphorus.

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Geochemical study of saline springs in the
Kavkaz area. II. Water and thermal regime of the springs
in the Caucasus. H. Bekasova. *Trudy Vsesoyuznogo Nauchnogo
Centra* 1956. 104 p. 1000 copies. 1000 copies.
The study is devoted to the investigation of the
thermal regime of the springs in the Caucasus
area. The author analyzes the data on the
temperature of the springs with various times
of day and night.

2

DERJONOV, A. B., Academician, and SOVOROV, B. V., Cand. Tech. Sci.,

"The Kazakh Chemical Industry." Promyshlennost' Kazakhstana za 40 let; sbornik statey (The Industry of Kazakhstan During the Last Forty Years; Collection of Articles) Alma Ata, Kazgosizdat, 1957. 150 p.

The article lists a number of chemical enterprises, mainly plants producing fertilizers, and discusses some of their problems. Other items discussed are potash salt, borates, and synthetic rubber.

BEKTUROV, A. B.

"Chemistry in the Service of the National Economy of the Republic."
p. 182, in Science in Kazakhstan during the Forty Years of the Soviet Regime.
Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1957. 452p. (ed. Satpayev, K. I.)

This is a collection of articles (20) compiled by 24 authors on various aspects of scientific progress in Soviet Kazakhstan. One third of the articles also deal with the progress made in the main fields of industrial endeavor. The articles on the development of science survey the main contributions made in the respective branches by Kazakh scientists, and enumerate and describe the existing scientific institutes, organizations, and universities. A large number of scientists are mentioned and their fields of interest stated.

BEKTUROV, A.B.

PHASE I BOOK EXPLOITATION

SOV/2648

5(1)

Akademiya nauk Kazakhskoy SSR. Institut khimicheskikh nauk

Trudy, tom 1: Fiziko-khimicheskkiye i tekhnologicheskkiye issledovaniya khimicheskogo syr'ya Kazakhstana (Transactions of the Institute of Chemical Sciences, Kazakh SSR Academy of Sciences, Vol 1: Physicochemical and Technological Studies of Chemical Raw Materials of Kazakhstan) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1957. 94 p. Errata slip inserted. 900 copies printed.

Ed. (Title page): A.B. Bekturov, Academician, Kazakh SSR Academy of Sciences; Ed. (Inside book): V.V. Aleksandriyskiy; Tech. Ed.: P.F. Alferov.

PURPOSE: This book is intended for chemical specialists, engineers, and researchers in the field of chemical production.

COVERAGE: The book is a collection of articles dealing with the following: chemical composition and hydrochemical nature of water sources of Chul'-Adyr sulfate deposits; conditions for the reduction of fused phosphates from Karatatau Phosphorites; problems in

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Transactions of the Institute (Cont.)

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the alkali method of processing borate ore; and physicochemical studies in the solubility of systems which contain borax, sodium carbonate, and sodium bicarbonate. One article discusses the production of "thermophosphates" (phosphate fertilizers prepared without the use of sulfuric acid). The collection includes work on the investigation of a method of separating phosphorus from vanadium in cation exchange resins. No personalities are mentioned. References are given at the end of each article.

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MUN, A.I.; BEKTUROV, A.B.

Hydrochemistry of lakes in northern Kazakhstan. Izv. AN Kazakh. SSR.
Ser.khim. no.1:3-11 '58. (MIRA 12:2)
(Kazakhstan--Lakes) (Water--Analysis)

AUTHORS: Bekturov, A. B., Il'yasova, A. K. SOV/78-3-8-39/48

TITLE: The Production of the Calcium Salts of Uranyl Succinate
(O poluchenii kal'tsiyevoy soli yantarnokislogo uranila)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol. 3, Nr 8, pp. 1967-1968 (USSR)

ABSTRACT: The compound $\text{CaUO}_2(\text{C}_4\text{H}_4\text{O}_4)_2 \cdot 3\text{H}_2\text{O}$ was produced by crystallization from a solution of CaUO_4 in excess, saturated aqueous succinic acid solution. The compound is crystallized in big prismatic crystals of yellow color. The impurities of succinic acid are removed from the salt crystallized out by solution in hot water; the succinic acid is then soluble, and the calcium uranyl succinate $\text{CaUO}_2(\text{C}_4\text{H}_4\text{O}_4)_2 \cdot 3\text{H}_2\text{O}$ - is insoluble. This compound is difficult to solve in lukewarm and hot water, and it is insoluble in ether, alcohol, acetone and toluene; it is, however, soluble in saturated aqueous solutions of succinic acid. The authors found for $\text{CaUO}_2(\text{C}_4\text{H}_4\text{O}_4)_2$: U - 40,20%, CaO - 10,08%, 10,19%, 9,8%, C - 16,09%, 16,1%, H - 2,45%, 2,44%. Under the microscope the crystals represent rectangular platelets with

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SOV/78-3-8-39/48

The Production of the Calcium Salts of Uranyl Succinate

the following refractive index: $N_g = 1,562$ and $N_p = 1,539$.

The thermographic analysis of this compound showed that up to 550°C two endothermal effects occur: the first at 215-155°C corresponds to the dehydration of the compound. On heating $\text{CaUO}_2(\text{C}_4\text{H}_4\text{O}_4)_2 \cdot 3\text{H}_2\text{O}$ to 900-1000°C a yellow CaUO_4 remains back as deposit.

The experiment of producing a sodium salt from uranyl succinate failed. Instead of this salt always the compound $\text{UO}_2\text{C}_4\text{H}_4\text{O}_4 \cdot 2\text{H}_2\text{O}$ was precipitated, since this compound is more difficult to solve and is more stable than the sodium uranyl succinate. There are 2 figures and 2 references, 0 of which is Soviet.

ASSOCIATION: Institut khimii AN Kazakhskoy SSR (Institute of Chemistry, AS Kazakhskaya SSR)

SUBMITTED: February 8, 1958

Card 2/2

BEKTUROV, A.B.; MUN, A.I.; DABER, R.S.

Magnesium chloride in salt lakes of northern Kazakhstan. Vest. AN
Kazakh. SSR 14 no.5:68-74 My '58. (MIRA 11:7)
(North Kazakhstan Province--Salt industry) (Magnesium salts)

BEKTUROV, A.B., akademik

Outlook for the development of chemical industries in Kazakhstan and tasks of scientists in the light of the decisions of the May Plenum of the Central Committee of the C.P.S.U. Vest. AN Kazakh. SSR 14 no.7:3-12 JI '58. (MIRA 11:9)

1. AN KazSSR.

(Kazakhstan--Chemical industries)

BEKTUROV, A.B.; MUN, A.I.; TSOKALO, V.M.

Hydrochemistry of Lake Tengiz. Izv.AN Kazakh.SSR.Ser.khim.
no.2:3-8 '59. (MIRA 12:8)
(Tengiz, Lake--Water--Analysis)

5(2), 5(4)

AUTHORS:

Bekturov, A. B., Litvinenko, V. I.

SOV/78-4-7-38/44

TITLE:

The Solubility Isothermal Lines of the Quaternary System $H_3BO_3 - MgSO_4 - Na_2SO_4 - H_2O$ at 15° (Izoterma rastvorimosti chetvernoy sistemy $H_3BO_3 - MgSO_4 - Na_2SO_4 - H_2O$ pri 15°)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 7, pp 1677 - 1681 (USSR)

ABSTRACT:

The industrial production of boric acid in the USSR is effected by decomposing natural borates with sulphuric acid. As the natural borates, besides magnesium, also contain sodium, and as no published data could be found for the system mentioned in the title, the ternary system $H_3BO_3 - Na_2SO_4 - H_2O$ and the quaternary system mentioned in the title were investigated. The results obtained for the ternary system are given by table 1 and figure 1, those of the quaternary system by table 2 and figure 2. In the presence of Na_2SO_4 alone the solubility of boric acid increases from 4.08% to 5.07%. An addition of $MgSO_4$ lowers the solubility of boric acid to 2.76%. The addition of

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SOV/78-4-7-38/44

The Solubility Isothermal Lines of the Quaternary System $H_3BO_3 - MgSO_4 - Na_2SO_4 - H_2O$ at 15°

Na_2SO_4 to a solution of boric acid and magnesium sulfate increases the solubility of boric acid only little, but it decreases that of magnesium sulfate considerably. In order to avoid losses by the boron acid content of the mother lye, the crystallization of boric acid must therefore not be carried out near the ternary eutonic point, in which all three phases crystallize and which corresponds to the composition 18.87% $MgSO_4$, 11.16% Na_2SO_4 and 2.76% H_3BO_3 . There are 2 figures, 2 tables, and 12 references, 7 of which are Soviet.

ASSOCIATION: Institut khimicheskikh nauk Akademii nauk Kazakhskoy SSR
(Institute for Chemical Sciences of the Academy of Sciences, Kazakhskaya SSR)

SUBMITTED: April 23, 1958

Card 2/2

AVROV, P.Ya.; AYTALIYEV, Zh. A.; AUMZOV, M.O.; AKHMEDSAFIN, U.M.; BATISHCHEV-
 TARASOV, S.D.; BAZANOVA, N.U.; BAISHEV, S.B.; BAYKONUROV, A.B.;
 REKTUROV, A.B.; BOGATYREV, A.S.; BOK, I.I.; BORUKAYEV, R.A.; BUBLICHENKO,
 N.L.; BYKOVA, M.S.; ZHILINSKIY, G.B.; ZYKOV, D.A.; IVANKIN, P.F.;
 KAZANLI, D.N.; KAYUPOV, A.K.; KENESBAYEV, S.K.; KOLOTILIN, N.P.;
 KUNAYEV, D.A.; KUSHEV, G.L.; LAY, I. I.; MASHANOV, O.Zh.; MEDOYEV,
 G.TS.; MONICH, V.K.; MUKANOV, S.; MUSREPOV, G.; MUKHAMEDZHANOV, S.M.;
 PARSHIN, A.V.; POZDROVSKIY, S.N.; POLOSUKHIN, A.P.; RUSAKOV, M.P.;
 SERGIYEV, N.G.; SNEYULLIN, S.Sh.; TAZHIRAYEV, P.T.; YEZENKOV, V.G.;
 SHLYGIN, Ye.D.; SHCHERBA, G.N.; CHOKIN, Sh.Ch.; CHOLPANKULOV, T.Ch.

Sixtieth birthday of Academician Kanysh Imanbaevich Satpaev. Vest.
 AN Kazakh. SSR 15 no.4:58-61 Ap '59. (MIRA 12:7)
 (Satpaev, Kanysh Imanbaevich, 1899-)

MUN, A.I.; ZHAYMINA, R.Ye.; BEETUROV, A.B.

Potassium, bromine, and boron content of Kazakhstan salt lakes.
Izv.AN Kazakh.SSR.Ser.khim. no.1:3-7 '59. (MIRA 13:6)
(Kazakhstan--Potassium)
(Kazakhstan--Bromine)
(Kazakhstan--Boron)

SATPAIEV, K.I., glavnyy red.; CHOKIN, Sh.Ch., otv.red.; BAZANOVA, N.U., red.; BEKTUROV, A.B., red.; POKHOVSKIY, S.N., red.; POLOSUKHIN, A.P., red.; TAKIBAYEV, Zh.S., red.; ASAINOV, M.A., red.; POGOZHEV, A.S., red.; SEMENOV, M.N., red.; PROKHOROV, V.P., tekhn.red.

[Science in Soviet Kazakhstan, 1920-1960] Nauka Sovetskogo Kazakhstana, 1920-1960. Alma-Ata, 1960. 688 p.

(MIRA 13:12)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata.
(Kazakhstan--Science)

MUN, A.I.; BEKTUROV, A.B.

Hydrochemical regime of Lake Tengiz. Izv. AN Kazakh. SSR, Ser. khim.
no.1:22-28 '60. (MIRA 13:11)

(Tengiz, Lake--Brines)

KONOBITSKIY, Ye.G.; BEKTUROV, A.B.

Mutual solubility in the Quaternary system $H_3BO_3 - Na_2SO_4 - MgSO_4 - H_2O$ at 50° C. Izv. AN Kazakh. SSR Ser. Khim. no. 2:10-15 '60.
(MIRA 14:5)
(Boric acid) (Sodium sulfate) (Magnesium sulfate)

KONOBITSKIY, Ye.G.; BEKTUROV, A.B.

Mutual solubility in the quaternary system H_3BO_3 - Na_2SO_4 - $MgSO_4$ - H_2O at 25° C. Izv. AN Kazakh. SSR Ser. khim. no. 2:16-20 '60.

(MIRA 14:5)

(Boric acid) (Sodium sulfate) (Magnesium sulfate)

BEKTUROV, A.B.; POKROVSKAYA, Yu.A.; KALMYKOV, S.I.

Effect of various impurities on the extent of the decomposition of
phosphorites. Izv. AN Kazakh. SSR Ser. khim. no. 2:21-28 '60.

(MIRA 14:5)

(Phosphorites)

BEKTUROV, A.B., KONOBITSKIY, Ye.G.

Mutual solubility in the quaternary system H_2BO_3 - Na_2SO_4 - $MgSO_4$ - H_2O at 60°. Zhur. neorg. khim. 5 no.4:945-949 Ap '60.2
(MIRA 13:7)

1. Institut khimicheskikh nauk AN KazSSR, Laboratoriya mineral'-
nykh udobreniy.
(Boric acid) (Sodium sulfate) (Magnesium sulfate)

MUN, A. I., BAZILEVICH, Z. A., BEKTUROV, A. B.

Geochemistry of bromine in the lakes of central Kazakhstan. Vest.
AN Kazakh.SSR 16 no.7:13-20 J1 '60. (MIRA 13:8)
(Kazakhstan--Lakes) (Bromine)

BEKTUROV, A.B.; MUN, A.I.; BAKYEV, M.I.

Physicochemical characteristics of salt lakes of the Teniz-Korzhunkul basin. Vest.AN Kazakh SSR 16 no.11:13-19 N '60. (MIRA 13:12)
(Teniz-Korzhunkul region--Salinity)

BEKTUROV, A.B.; MUN, A.I.; BAZILEVICH, Z.A.

Chemical composition of brines of salt lakes in the Kokchetav
Province. Izv. AN Kazakh. SSR. Ser. khim. no. 1:3-6 '61. (MIRA 16:7)
(Kokchetav Province--Lakes) (Brine)

BEKTUROV, A.B., akademik; MULDAGALIYEV, Kh.D.

Effect of electrolytes on the distribution of phosphoric acid
between two solvents. Vest.AN Kazakh.SSR 17 no.3:18-28 Mr '61.
(MIPA 14:3)

1. Akademiya nauk KazSSR (for Bekturov).
(Electrolytes) (Phosphoric acid)

BEKTUROV, A.B.; KONOBRITSKIY, Ye.G.

Mutual solubility in the quaternary system H_2BO_3 - Na_2SO_4 - $MgSO_4$ - H_2O
at 35°C. Zhur. org. khim. 7 no.1:1704-1707 J1 162. (MIRA 16 3
(Systems (Chemistry)) (Solubility) : n

BEKTUROV, A.B.; IL'YASOVA, A.K.; GESKINA, R.A.

"Hydrated pentoxides" of vanadium. Zhur.neorg.khim. 7 no.9:2134-
2139 S '62. (MIRA 15:9)

(Vanadium oxide)

IL'YASOVA, A.K.; BEKTUROV, A.B.

State of colored isopolyvanadium ions in solutions. Zhur.neorg.-
khim. 7 no.9:2149-2154 S '62. (MIRA 15:9)

1. Institut khimii AN KazSSR.
(Vanadium compounds)

BEKTUROV, A.B., akademik; MUN, A.I., kand. khimicheskikh nauk;
BAZILEVICH, Z.A.

Some problems concerning the distribution of fluorine in
the natural waters of Kazakhstan. Vest. AN Kazakh. SSR
18 no.10:3-10 0 '62. (MIRA 17:9)

1. Akademiya nauk Kazakhstoy SSR (for Bekturov).

SERAZETDINOV, D.Z.; BEKTUROV, A.B.

Interaction of potassium chloride with polyhalite under conditions of
hydrothermal process. Trudy Inst.khim.nauk AN Kazakh.SSR 10:119-129 '64.
(MIRA 17:10)

BEKTUROV, A.B.; IL'YASOVA, A.K.

Phosphovanadic heteropoly compounds. Trudy Inst.khim.nauk AN Kazakh.SSR
10:130-144 '64. (MIRA 17:10)

MUN, A.I.; IDRISOVA, R.A.; BAYTUROV, A.B.

Forms of the occurrence of some trace elements in lake sediments.
Vest. AN Kazakh. SSR 20 no.8:18-23 Ag 164.

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BEKTUROV, A.B.; TIKHONOV, V.V.; ESIK, N.K.

Interaction of natural phosphates with gaseous reducing agents in the presence of sodium and magnesium salts. Trudy Inst.khim.nauk AN Kazakh. SSR 10:94-99 '64. (MIRA 17:10)

BEKTUROV, A.B.; MUN, A.I.; DARER, R.S.

Chemistry and technology of mineral fertilizers and natural salts.
Trudy Inst.khim.nauk AN Kazakh.SSR 10:5-19 '64.

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MUN, A.I.; ZHAYMINA, R.Ye.; BEKTUROV, A.B.

Geochemistry of boron in natural waters of Kazakhstan. Trudy Inst.khim.
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BEKTUROV, A.B.; MUN, A.I.; DARER, R.S.

Hydrochemistry of Zhalauly, Teke, and Kyzylkak / saline lakes. Trudy
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BEKTUROV, A.B., akademik

State of and outlook for the development of the production of
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no.12:6-14 D '63. (MIRA 17:12)

1. Akademiya nauk Kazakhskoy SSR.

IDRISOVA, R.A.; BEKTUROV, A.B.; MUN, A.I.

Cobalt, nickel, copper, and zinc content of lakes and rivers of Central
Kazakhstan. Trudy Inst.khim.nauk AN Kazakh.SSR 10:88-93 '64.
(MIRA 17:10)

LITVINENKO, V.I.; BEKTUROV, A.B.; EKSHTELIS, A.V.

Decomposition of Karatau phosphorites by concentrated sulfuric acid.
Trudy Inst.khim.nauk AN Kazakh.SSR 10:100-109 '64.

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LITVINENKO, V.I.; EKSHTELIS, A.V.; BEKTUROV, A.B.

Effect of certain factors on the dissolution of polyhalite in
phosphoric acid. Izv. AN Kazakh.SSR.Ser.khim.nauk 15 no.3:3-14
1965. (MIRA 18:11)

1. Submitted March 1, 1965.

BEKTUROV, A.B., akademik; TIKHONOV, V.V., kand. tekhn. nauk; ESIK, V.K.;
SOPILIDI, V.N.

Concentrated fertilizer of the calcium metaphosphate type produced
from the Karatau phosphorites. Vest. AN Kazakh. SSR 21 no.12:6-14
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1. Akademiya nauk Kazakhskoy SSR (for Bekturov).

BEKTUROV, A.G.; ANTONOVA, V.I.

Decomposition of hydroboracite and hydroboracite ore by sodium sulfide
solutions. Trudy inst.khim.nauk AN Kazakh.SSR 1:52-59 ' 57.
(Hydroboracite) (Sodium sulfide) (MIRA 11:11)